Amendments to the Specification:

Please amend the specification as follows.

Please replace paragraph [0027] with the following amended paragraph:

[0027] Figure 1 shows an upper pressure plate 3 made from silica glass onto which workpieces 4 and 5, the upper workpiece 4 and the upper pressure plate 3 being transparent to a laser beam (not illustrated) from a laser source. The laser beam ~~2~~ is formed in a known way by means of suitable optical means such that it is positioned vertically above the region to be machined and is moved over the latter. This can be performed by appropriate deflecting mirrors, or by moving the laser source itself or the supporting table. The laser beam passes through the upper pressure plate 3 and the upper workpiece 4 such that the laser beam heats up the material in the adhered region 6 between two workpieces, and thereby effects welding of the two workpieces 4 and 5 in this exemplary embodiment. An appropriate mask can be located on the upper pressure plate 3 in order to select the regions to be welded. The two workpieces 4 and 5 are arranged on supporting segments 8 of a lower pressure plate 9. Both the upper pressure plate and the lower pressure plate can, for example, be moved hydraulically or pneumatically by a customary piston/cylinder arrangement. In the present exemplary embodiment, the upper pressure plate 3 is fixed, while, after the arrangement of the workpieces 4, 5 on the respective supporting segments 8, as illustrated in the Figure, the lower

pressure plate 9 presses the top sides of the upper workpieces 4 against the upper pressure plate with a fixed holding pressure. The supporting segments 8 mounted moveably in the lower pressure plate 9 can likewise be actuated pneumatically in the vertical direction, for example via a conventional piston/cylinder arrangement, generally denoted as a pressure generator 10.

Please replace paragraph [0028] with the following amended paragraph:

[0028] Depending on the design, the pressure generator can be controlled in this case if needed such that an appropriate higher contact pressure is applied only to the supporting segment 8, which is currently being struck by the laser beam ~~2~~, and not to the remaining other supporting segments 8', 8''. As soon as the laser beam ~~2~~ passes to the next supporting segment 8', the supporting segment 8 is press-relieved and an increased pressure is correspondingly applied to the supporting segment 8'. It is thereby ensured in this exemplary embodiment that the workpieces are exposed only for the moment of machining to an increased contact pressure which is necessary, for example, for the quality requirements in the case of microstructures and nanostructures at the moment of machining, and so machining that is dimensionally accurate and exact is not possible. In the exemplary embodiment in accordance with Figure 1, compressed air is applied to the supporting segments 8', 8'' after the lower pressure plate 9 has been brought into the vicinity of the upper pressure plate 3 via a pressure generator 10. The individual

pressure pistons 16 of the supporting segment 8', 8'' are moved in the vertical direction via the pressure chamber 15 and can be adapted to various thicknesses of the workpieces 4, 5, the contact pressure being the same for them all. A controlled selection of individual supporting segments does not take place here.